

☺ *Change to positive index.*

(1) x^{-3}

(2) y^{-5}

(3) a^{-4}

(4) b^{-7}

(5) c^{-6}

☺ *Change to positive index.*

(6) $\frac{1}{x^{-7}}$

(7) $\frac{1}{y^{-3}}$

(8) $\frac{1}{a^{-2}}$

(9) $\frac{1}{b^{-6}}$

(10) $\frac{1}{c^{-11}}$

☺ *Change to positive index.*

(11) $x^{-3}b^2$

(12) $a^{-8}b^{-5}$

(13) x^4y^{-2}

(14) $x^{-5}y^3$

(15) m^3n^{-3}

☺ *Change to positive index.*

(16) $\frac{1}{m^3n^{-2}}$

(17) $\frac{1}{x^{-2}y^{-3}}$

(18) $\frac{c^{-2}}{d^3}$

(19) $\frac{a^{-2}}{b^{-3}}$

(20) $\frac{x^2}{y^{-5}}$

☺ Change to positive index.

(21) $a^3b^{-2}c^2$

(22) $x^{-3}y^2z^{-5}$

(23) $c^2d^3e^{-5}$

(24) $m^{-2}n^{-3}p^2q^3$

(25) $a^3b^{-2}c^{-5}d^4$

☺ Change to positive index.

(26) $\frac{a^{-2}b^2}{c^3d^{-2}}$

(27) $\frac{a^3}{b^{-2}c^5}$

(28) $\frac{n^{-2}p^2}{m^{-4}}$

(29) $\frac{x^2y^{-3}}{z^4a^{-1}b^2}$

(30) $\frac{m^2n^{-7}a^6}{b^{-3}x^4y^{-3}}$

☺ Evaluate the following.

(31) 2^{-3}

(32) 5^{-2}

(33) 7^{-2}

(34) $3^3 \times 5^{-2}$

(35) $4^{-2} \times 3^3$

☺ Evaluate the following.

(36) $\frac{2^2}{3^{-2}}$

(37) $\frac{2^{-3}}{2^2}$

(38) $\frac{7^{-2}}{5^{-2}}$

(39) $\frac{2^{-3}}{3^2 \times 4^{-2}}$

(40) $\frac{3^2 \times 4^{-2}}{2^{-4}}$

☺ Simplify the following.

(41) $a^3 \times a^2$

(42) $b^5 \times b^7$

(43) $c^3 \times c^{-4}$

(44) $x^{10} \times x^{20}$

(45) $y^{-7} \times y^{11}$

☺ Simplify the following.

(46) $a^3 \times a^5 \times b^{-2} \times b^4$

(47) $b^2 \times a^2 \times b^{10} \times a^3$

(48) $y^2 \times x^{-3} \times x^7 \times y^5$

(49) $c^5 \times d^2 \times c^3 \times c^{-2} \times d^4$

(50) $x^5 \times x^2 \times y^3 \times x^{-2} \times y^6 \times y^{-2}$

☺ Simplify the following.

(51) $a^3 \times a^5 \times b^2 \times b^7 \times c^3 \times c^4$

(52) $a^2 b^3 c^4 \times a^3 b^2 c^{-3}$

(53) $m^5 n^{-2} \times a^6 b^3 \times a^2 b^2 \times m^{-2} n^6$

(54) $x^3 y^5 z^{-3} \times x^2 y^{-3} z^{-2} \times x^{10} y^{10} z^{15}$

(55) $c^2 d^3 e^3 \times c^3 d^5 e^7 \times c^{-4} d^{-6} e^{-7}$

☺ Simplify the following.

(56) $4x^2 \times 5y^3 \times -2x^3 \times 3y^2$

(57) $-2a^2 b^3 c^5 \times -3a^{-2} b^2 c^{-2} \times 4a^2 b^{-1} c^3$

(58) $5c^2 d^3 \times -6c^3 d^{-2} \times 3c^2 d^2 \times -2c^{-3} d^5$

(59) $3x^{-3} y^2 z^2 \times -5x^2 y^{-3} z^2 \times 6x^5 y^5 z^{-2}$

(60) $2h^2 k^3 m^3 n^3 \times -7m^2 h^{-3} k^4 n^2 \times 3k^2 h^2 n^{-2} m^4$

☺ Simplify the following.

(61) $a^5 \div a^2$

(62) $b^{10} \div b^7$

(63) $c^3 \div c^{-2}$

(64) $d^6 \div d^{-4}$

(65) $x^{10} \div x^5$

☺ Simplify the following.

(66) $(a^7b^4) \div (a^3b^2)$

(67) $(x^5y^6) \div (y^{-2}x^4)$

(68) $(x^{-2}y^7) \div (x^{-5}y^3)$

(69) $(c^3d^8) \div (cd^6)$

(70) $(m^{10}n^{-3}) \div (m^8n^{-7})$

☺ Simplify the following.

$$(71) \quad (x^7 y^3 z^5) \div (z^2 x^4 y^2)$$

$$(72) \quad (x^9 y^{-3} z^4) \div (x^3 y^{-5} z^2)$$

$$(73) \quad (a^{10} b^{20} c^{30}) \div (a^5 b^{18} c^{24})$$

$$(74) \quad (h^{-3} k^{-2} m^6 n^{-2}) \div (h^{-10} k^{-6} m^3 n^{-10})$$

$$(75) \quad (a^5 b^{-4} c^3 d^{-2}) \div (a^3 d^{-5} c^{-2} b^{-7})$$

☺ Simplify the following.

$$(76) \quad (a^6 b^3 c^{-2}) \div (a^3 b^3 c^{-4})$$

$$(77) \quad (x^{-2} y^5 z^3) \div (x^{-2} y^3 z^3)$$

$$(78) \quad (m^3 n^2 h^6) \div (h^4 m^3 n^{-2})$$

$$(79) \quad (c^{10} d^7) \div (c^5 d^2) \div (c^5 d^5)$$

$$(80) \quad (a^{10} b^{-2} c^{-3}) \div (a^6 b^4 c^3) \div (a^2 b^{-6} c^{-6})$$

☺ Simplify the following.

(81) $(50a^7b^4) \div (-5a^5b)$

(82) $(24x^8y^{-4}) \times (8y^{-10}x^8)$

(83) $(-12h^3k^6) \div (-6hk^{-2})$

(84) $(48x^5y^7) \times (-2xy^2) \div (6x^{-2}y^3)$

(85) $(10m^3n^2) \div (5m^{-2}n^{-2}) \times (2m^5n^{-1})$

☺ Simplify the following.

(86) $(22x^7y^5z^{10}) \div (2x^3y^2z^7)$

(87) $(-9a^{-2}b^8c^5) \times (3a^{-1}b^7c^4)$

(88) $(100a^7b^6c^8d^5) \div (25ab^4c^8d^3)$

(89) $(6x^{10}y^5z^{-2}) \times (-3x^7y^{-3}z^{-5}) \div (2x^2y^{-3}z^2)$

(90) $(18a^{18}b^3c^{12}) \div (6c^4a^7b^{-2}) \times (-3b^4a^4c^5)$

☺ Simplify the following.

(91) $(77f^4g^4) \times (-7f^5g^3)$

(92) $(-81x^9y^{-5}) \div (27x^{-6}y^{-3})$

(93) $(36h^7k^5) \times (-6h^5k^4)$

(94) $(24x^4y^7) \div (3xy^3) \div (-2x^{-3}y^3)$

(95) $(4m^3n^9) \div (6m^{-3}n^4) \div (12m^5n^{-12})$

☺ Simplify the following.

(96) $(56x^2y^6z^8) \div (8x^3y^5z^4)$

(97) $(39a^5b^{-2}c^3) \times (-13a^{-4}b^{-2}c^2)$

(98) $(16a^5b^3c^{-5}d^{-2}) \div (4ab^{-2}c^{-6}d^3)$

(99) $(8x^5y^{-1}z^4) \div (4x^7y^{-2}z^3) \div (-2x^{-5}y^6z^{-2})$

(100) $(-14a^2b^3c^{-2}) \div (3c^4a^{-2}b^3) \div (-21b^2a^2c^2)$